

WHAT IS CLAIMED IS

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1. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

10 a destination registering unit storing a destination identifier of the image file, the destination identifier indicating one of the external stations to which the image file is transmitted from the image processing device;

15 a sender registering unit storing a sender identifier of the image file, the sender identifier indicating a person or group who sends the image file to said one of the external stations; and

a transmission unit transmitting the image file, together with the stored sender identifier, through the network to said one of the external stations indicated by the stored destination identifier.

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2. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

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a destination registering unit storing a destination identifier of the image file, the destination identifier indicating one of the external stations to which the image file is transmitted from the image processing device;

5           an image subject registering unit storing a subject identifier of the image file, the subject identifier indicating one of a plurality of image subject indications to indicate names of images in the image file being transmitted; and

10           a transmission unit transmitting the image file, together with the stored subject identifier, through the network to said one of the external stations indicated by the stored destination identifier.

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3. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

20           a destination registering unit storing a destination identifier of the image file, the destination identifier indicating one of the external stations to which the image file is transmitted from the image processing device;

25           a scan condition registering unit storing a scan condition of the image file, the scan condition indicating a resolution of a scanner used when scanning a document to obtain the image file; and

a transmission unit transmitting the image file, together with the stored scan condition, through the network to said one of the external stations indicated by the stored destination identifier.

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4. An image processing method for transmitting an image file from an image processing device to one of a plurality of external stations through a network, comprising the steps of:

10 storing a destination identifier of the image file, the destination identifier indicating one of the external stations to which the image file is transmitted from the image processing device;

15 storing at least one of a sender identifier of the image file, a subject identifier of the image file and a scan condition of the image file; and

20 transmitting the image file, together with said at least one of the sender identifier, the subject identifier and the scan condition, through the network to said one of the external stations indicated by the stored destination identifier.

25 5. An image processing system including an image processing

device and a plurality of external stations connected to the image processing device through a network, the image processing device comprising:

5 a scanner unit reading image data from a document, the scanner unit being provided with an automatic document feeder that transports the document to the scanner unit when reading of the image data;

an image memory storing a plurality of image data read from documents by using the scanner unit;

10 a transmission unit transmitting an image file, derived from the stored image data of the image memory, to one of the plurality of external stations through the network; and

15 an operation unit selecting one of the external stations as a destination station which receives the image file through the network, by inputting key-in information;

wherein said one of the external stations comprises a file format selection unit which selects one of a plurality of file formats from a file format list, as a file format of an image file received at said one of the plurality of external stations, in accordance with key-  
20 in information input by an operator on said one of the external stations, and wherein the image processing device stores the file format list containing the file format selected for said one of the external stations.

a scanner unit reading image data from a document, the  
5 scanner unit being provided with an automatic document feeder that  
transports the document to the scanner unit when reading of the  
image data;

10           a transmission unit transmitting an image file, derived from  
the stored image data of the image memory, to one of the external  
stations through the network;

a file combining unit combining a plurality of image files, derived from the plurality of image data read by the scanner unit, into a single image file before the image file transmission, so that  
20 the transmission unit transmits the combined image file, produced by the file combining unit, through the network to said one of the external stations selected as the destination station by the operation unit.

7. An image processing method for transmitting an image file from an image processing device to one of a plurality of external stations through a network, comprising the steps of:

reading image data from a document by using a scanner unit,  
5 the scanner unit being provided with an automatic document feeder that transports the document to the scanner unit when reading of the image data;

storing a plurality of image data, read from documents by using the scanner unit, into an image memory;

10 transmitting an image file, derived from the stored image data of the image memory, to one of the external stations through the network;

selecting one of the external stations as a destination station which receives the image file through the network, in accordance  
15 with key-in information that is input by an operator from an operation unit; and

combining a plurality of image files, derived from the plurality of image data read by the scanner unit, into a single image file before the image file transmission step, so that the combined  
20 image file is transmitted through the network to said one of the external stations selected as the destination station.

8. An image processing system including an image processing device and a plurality of external stations connected to the image processing device through a network, the image processing device comprising:

5           a scanner unit reading image data from a document, the scanner unit being provided with an automatic document feeder that transports the document to the scanner unit when reading of the image data;

10           an image memory storing a plurality of image data read from documents by the scanner unit;

          a transmission unit transmitting an image file, derived from the stored image data of the image memory, to one of the external stations through the network;

15           an operation unit selecting one of the external stations as a destination station which receives the image file through the network, in accordance with key-in information that is input by an operator from the operation unit; and

20           a file combining unit combining a plurality of image files, derived from the plurality of image data read by the scanner unit, into a single image file before the image file transmission, so that the transmission unit transmits the combined image file, produced by the file combining unit, through the network to said one of the external stations selected as the destination station by the operation unit.

9. The image processing system according to claim 8, wherein one of the plurality of external stations comprises a secondary file combining unit which combines a plurality of image data, received from the image processing device through the network, into a single image file.

10. An image processing method for transmitting an image file from an image processing device to one of a plurality of external stations through a network, comprising the steps of:

reading image data from a document by using a scanner unit, the scanner unit being provided with an automatic document feeder that transports the document to the scanner unit when reading of the image data;

storing a plurality of image data, read from documents by using the scanner unit, into an image memory;

selecting one of the external stations as a destination station which receives the image file through the network, in accordance with key-in information that is input by an operator from an operation unit;

transmitting the plurality of image data, stored in the image memory, from the image processing device to said one of the external stations, selected as the destination station, through the



network;

receiving the plurality of image data, transmitted by the image processing device, at the destination station; and

combining the plurality of image files, received at the  
5 destination station, into a single image file.

10 11. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

an image memory storing a plurality of image data, read from documents by a scanner unit;

15 a transmission unit transmitting an image file, derived from the stored image data of the image memory, to one of the external stations through the network;

an image data selecting unit selecting one of a plurality of document identifiers of a document list as the image file which is  
20 transmitted to one of the external stations through the network, in accordance with key-in information that is input by an operator; and

a destination identifier selecting unit selecting one of a plurality of destination identifiers of a destination list as a destination group which receives the image file through the network,  
25 in accordance with key-in information that is input by the operator.

12. The image processing device according to claim 11,  
further comprising a file combining unit which combines a plurality  
of image files, derived from the plurality of image data read by the  
scanner unit, into a single image file before the image file  
5 transmission, so that the transmission unit transmits the combined  
image file, produced by the file combining unit, through the network  
to said one of the external stations.

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13. An image processing system including an image processing  
device and a plurality of external stations connected to the image  
processing device through a network, the image processing device  
15 comprising:

an image memory storing a plurality of image data, read from  
documents by a scanner unit;

20 a transmission unit transmitting an image file, derived from  
the stored image data of the image memory, to one of the external  
stations through the network;

an image data selecting unit selecting one of a plurality of  
document identifiers of a document list as the image file which is  
transmitted to one of the external stations through the network, in  
accordance with key-in information that is input by an operator; and

25 a destination identifier selecting unit selecting one of a

plurality of destination identifiers of a destination list as a destination group which receives the image file through the network, in accordance with key-in information that is input by the operator,

wherein one of the plurality of external stations comprises a file combining unit which combines a plurality of image data, received from the image processing device through the network, into a single image file.

14. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

an image memory storing a plurality of image data, read from documents by a scanner unit;

a transmission unit transmitting an image file, derived from the stored image data of the image memory, to one of the external stations through the network;

an image data selecting unit selecting one of a plurality of document identifiers of a document list as the image file which is transmitted to one of the external stations through the network, in accordance with key-in information that is input by an operator;

a file combining unit combines a plurality of image files, derived from the image data of the image memory indicated by the

document identifiers selected from the document list, into a single image file before the image file transmission; and

a destination identifier selecting unit selecting one of a plurality of destination identifiers of a destination list as a destination group which receives the image file through the network, in accordance with key-in information that is input by the operator.

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15. The image processing device according to claim 14, wherein the file combining unit produces a newly combined image file from the selected image data based on offset values that are input by the operator.

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16. The image processing system according to claim 13, wherein the image processing device further comprises a secondary file combining unit which combines a plurality of image files, derived from the image data of the image memory indicated by the document identifiers selected from the document list, into a single image file before the image file transmission.

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<sup>16</sup>  
17. The image processing system according to claim 13,  
wherein one of the external stations comprises:

a secondary image data selecting unit selecting one of the  
plurality of document identifiers of the document list as the image  
5 file which is received from the image processing device through the  
network, in accordance with key-in information that is input by an  
operator; and

a secondary destination identifier selecting unit selecting one  
of the plurality of destination identifiers of the destination list as  
10 the destination group which receives the image file from the image  
processing device through the network, in accordance with key-in  
information that is input by the operator.

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<sup>17</sup>  
18. An image processing method for transmitting an image file  
from an image processing device to one of a plurality of external  
stations through a network, comprising the steps of:

20 storing a plurality of image data, read from documents by a  
scanner unit, into an image memory;

selecting one of a plurality of document identifiers of a  
document list as the image file which is transmitted to one of the  
external stations through the network, in accordance with key-in  
25 information that is input by an operator;

selecting one of a plurality of destination identifiers of a destination list, as a destination group which receives the image file through the network, in accordance with key-in information that is input by the operator;

5 combining a plurality of image files, indicated by the selected document identifiers, into a single image file; and

transmitting the combined image file through the network to the destination group of said one of the external stations selected as the destination station.

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19. <sup>18</sup> An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

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a destination registering unit storing a destination identifier of the image file, the destination identifier indicating one of the external stations as a destination station which receives the image file transmitted by the image processing device;

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a personnel information registering unit storing a plurality of personnel information items related to a number of personnel of a sender group, the personnel information items being correlated to respective personnel identifiers; and

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a transmission unit transmitting the image file, together with a

relevant personnel information item, through the network to said one of the external stations indicated by the destination identifier.

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20. The image processing device according to claim 19,  
wherein the image processing device is configured to read the  
relevant personnel information item from among the plurality of  
10 personnel information items stored by the personnel information  
registering unit, based on an input personnel identifier that is input  
by an operator.

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21. An image processing system including an image processing  
device and a plurality of external stations connected to the image  
processing device through a network, the image processing device  
20 comprising:

a destination registering unit storing a destination identifier  
of an image file

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22. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:

5           a scanner unit reading image data from a document;  
          an image memory storing the image data read by the scanner unit;

          a first file combining unit producing a combined image file from document files selected from the stored image data of the  
10       image memory;

          a printer unit printing an image of the combined image file produced by the first file combining unit, wherein an operator determines offset values of the selected document files from the printed image of the combined image file;

15           a second file combining unit producing a newly combined image file from the selected document files based on the offset values; and

          a transmission unit transmitting the newly combined image file, produced by the second file combining unit, to one of the  
20       plurality of external stations through the network.

23. The image processing device according to claim 22,



wherein the printer unit supplies a printed image sheet including a vertical scale that is parallel to a sub-scanning direction and a horizontal scale parallel to a main scanning direction, in order to facilitate the operator's determination of the offset values that provide a proper page layout of the combined image file.

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- 10 24. An image processing device which transmits an image file to one of a plurality of external stations through a network, comprising:
- a scanner unit reading image data from a document;
  - an image memory storing the image data read by the scanner
  - 15 unit;
  - a file combining unit producing a combined image file from document files selected from the stored image data of the image memory, the file combining unit performing OR operations of the image data of the selected files such that black dots, fixed to start
  - 20 positions of the images of the selected files, match with each other; and
  - a transmission unit transmitting the combined image file, produced by the file combining unit, to one of the plurality of external stations through the network.

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25. An image processing system including an image processing device and a plurality of external stations connected to the image processing device through a network, the image processing device comprising:

5           a scanner unit reading image data from a document;  
          an image memory storing the image data read by the scanner unit;

          a file combining unit producing a combined image file from document files selected from the stored image data of the image  
10       memory, the file combining unit performing OR operations of the image data of the selected files such that black dots, fixed to start positions of the images of the selected files, match with each other;  
          and

          a transmission unit transmitting the combined image file,  
15       produced by the file combining unit, to one of the plurality of external stations through the network.

20           26. An image processing method for transmitting an image file from an image processing device to one of a plurality of external stations through a network, comprising the steps of:

          reading image data from a document;  
25       storing the read image data into an image memory;

producing a combined image file from document files selected  
from the stored image data of the image memory;

printing an image of the combined image file, wherein an  
operator determines offset values of the selected document files  
5 from the printed image of the combined image file;

producing a newly combined image file from the selected  
document files based on the offset values; and

transmitting the newly combined image file to one of the  
plurality of external stations through the network.

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27. An image processing method for transmitting an image file  
15 from an image processing device to one of a plurality of external  
stations through a network, comprising the steps of:

reading image data from a document;

storing the read image data into an image memory;

producing a combined image file from document files selected  
20 from the stored image data of the image memory, wherein OR  
operations of the image data of the selected files are performed such  
that black dots, fixed to start positions of the images of the selected  
files, match with each other; and

transmitting the combined image file to one of the plurality of  
25 external stations through the network.

28. An image processing device which transmits an image file  
to one of a plurality of external stations through a network,  
comprising:

a scanner unit reading image data from a document;

5 an image memory storing the image data read by the scanner  
unit;

a transmission unit transmitting an image file, derived from  
the stored image data of the image memory, to one of the plurality of  
external stations through the network;

10 an image compression unit producing compressed image data  
from the image data, read by the scanner unit, before the  
transmission of the image file; and

a compression ratio calculation unit calculating a compression  
ratio based on an available storage amount of the image memory and  
15 a memory space needed to store the image data read by the scanner  
unit;

wherein the image processing device is configured to cause  
the image compression unit to produce the compressed image data  
from the image data by using the compression ratio calculated by the  
20 compression ratio calculation unit, and to cause the image memory  
to store the compressed image data into the image memory.

<sup>28</sup>  
29. The image processing device according to claim 28,  
further comprising a determination unit determining whether the  
calculated compression ratio is above a maximum compression ratio,  
wherein the image processing device is configured to select the  
5 calculated compression ratio for use in the image compression unit  
when the calculated compression ratio is less than the maximum  
compression ratio.

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<sup>29</sup>  
30. The image processing device according to claim 28,  
further comprising a determination unit determining whether the  
calculated compression ratio is above a minimum compression ratio,  
15 wherein the image processing device is configured to select the  
minimum compression ratio for use in the image compression unit  
when the calculated compression ratio is less than the minimum  
compression ratio.

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<sup>30</sup>  
31. An image processing method for transmitting an image file  
from an image processing device to one of a plurality of external  
25 stations through a network, comprising the steps of:

reading image data from a document;  
storing the read image data into an image memory;  
transmitting an image file, derived from the stored image data  
of the image memory, to one of the plurality of external stations  
5 through the network;

producing compressed image data from the read image data  
before the transmission of the image file; and

calculating a compression ratio based on an available storage  
amount of the image memory and a memory space needed to store  
10 the read image data;

wherein the compressed image data are produced from the read  
image data by using the calculated compression ratio, and the  
compressed image data are stored into the image memory.

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32. An image processing system including an image processing  
device and a plurality of external stations connected to the image  
20 processing device through a network, the image processing device  
comprising:

a scanner unit reading image data from a document;  
an image memory storing the image data read by the scanner  
unit;  
25 a transmission unit transmitting an image file, derived from

the stored image data of the image memory, to one of the plurality of external stations through the network;

an image compression unit producing compressed image data from the image data, read by the scanner unit, before the  
5 transmission of the image file; and

a compression ratio calculation unit calculating a compression ratio based on an available storage amount of the image memory and a memory space needed to store the image data read by the scanner unit;

10 wherein the image processing device is configured to cause the image compression unit to produce the compressed image data from the image data by using the compression ratio calculated by the compression ratio calculation unit, and to cause the image memory to store the compressed image data into the image memory.

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33. An image processing system including an image processing  
20 device and a plurality of external stations connected to the image processing device through a network,

the plurality of external stations comprising a server which receives and stores image data sent by the image processing device;

the image processing device comprising:

25 a scanner unit reading image data from a document;

an image memory storing the image data read by the scanner unit;

a transmission unit transmitting an image file, derived from the stored image data of the image memory, to the server of the plurality of external stations through the network;

wherein the server is configured to transmit the image data through the network to one of the plurality of external stations indicated by a destination identifier of the image file received from the image processing device.

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